Amendments to the Claims:

The following listing will replace all prior listing of claims in the application.

Listing of Claims:

CLAIMS

1. (Currently amended) ~~Method~~ A method of fabricating a mixed substrate wherein:

[[*]] providing two substrates ~~are prepared~~ each having respective faces adapted to be bonded together, ~~and consisting essentially at these~~ the faces ~~of~~ having crystalline portions and, wherein ~~on~~ at least one of ~~these two~~ the faces, includes regions ~~formed~~ of a material different from ~~those constituting~~ the crystalline portions~~,~~;

[[*]] positioning ~~these~~ the faces ~~are offered up~~ face-to-face and ~~are joined~~ joining the faces at an interface by molecular bonding to form bulk regions, in which the ~~facing~~ faces are ~~essentially~~ substantially crystalline, and stacked regions~~,~~ in which at least one of the ~~facing~~ faces ~~essentially consists of~~ includes regions of a different material~~,~~; and

[[*]] ~~heat treatment is effected~~ heating to consolidate the ~~bonding~~ bond,

~~characterized in that~~ wherein, during one of ~~the preparation of~~ providing the first and second substrates ~~(10, 12; 20, 22; 40, 42; 60, 62)~~ or ~~during the~~ joining ~~of~~ the faces, impurity traps are created at ~~said~~ the interface, ~~(11A, 21A, 41A, 61A)~~ such that any portion of ~~that~~ the interface ~~forming part of~~ at a bulk region is ~~at most at~~ within a ~~given~~ predetermined distance from a trap, and wherein the misalignment ~~while the faces are offered up face-to-face with a misalignment~~ between the crystalline portions when positioning the faces ~~of these two substrates~~ is ~~below~~ less than a ~~given~~ predetermined misalignment threshold.

2. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the regions ~~formed~~ of a different material ~~are~~ comprise electrically insulative layers.

3. (Currently amended) ~~Method~~ The method according to claim 1 ~~or claim 2~~, ~~characterized in that~~ wherein the regions ~~formed~~ of a different material ~~are~~ comprise localized oxide layers.

4. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the traps ~~are~~ comprise localized buried layers.

5. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the traps are localized oxide layers.

6. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein ~~these layers~~ the regions of a different material have a thickness ~~from~~ of approximately 0.01 microns to approximately 3 microns.

7. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the regions of a different material comprise localized oxide layers ~~are~~ prepared ~~by~~ thermal oxidation ~~through~~ using a mask.

8. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the regions of a different material comprise localized oxide layers ~~are~~ prepared by deposition ~~through~~ using a mask.

9. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that preparation~~ wherein providing two substrates further includes a step of treating the faces to render them hydrophobic.

10. (Currently amended) ~~Method~~ A method according to claim 1, ~~characterized in that~~ wherein the ~~given~~ predetermined misalignment threshold is ± 6° in rotation and ± 1° in bending.

11. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the method further comprises:

etching one of the faces ~~is etched~~ using a mask with patterns that are not farther apart than the ~~given~~ predetermined distance~~,~~;

generating an oxide layer (11, 41) ~~is then generated~~ on ~~this~~ the one face~~,~~;

planarizing the one face ~~is planarized~~ to expose the non-etched regions ~~(Z2, Z2")~~; and

cleaning the one ~~this~~ face ~~is cleaned~~ to render it hydrophobic.

12. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein preparation includes a step of treating the faces to render them hydrophilic.

13. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the given misalignment threshold is ± 1° in rotation and in bending.

14. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein the method further comprises ~~one of the faces with~~ forming an oxide layer on one of the faces and etching the ~~an~~ oxide layer and the one face ~~is etched~~ using a mask with patterns that are not farther apart than the ~~given~~ predetermined distance, and forming a thermal oxide layer (21, 61) ~~is generated~~ on ~~this~~ the one face, and planarizing the one face ~~is planarized~~ to expose ~~the~~ non-etched regions of the one face ~~(Z2', Z2''')~~, and cleaning the one ~~this~~ face ~~is cleaned~~ to render it hydrophilic.

15. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein ~~each~~ providing two substrates having crystalline portions ~~portion is made from~~ comprises providing a material selected from the group comprising Si, InP, AsGa, Ge, compounds of silicon, silicon-germanium, LiNbO3, III-V compounds, SiC, diamond, sapphire, piezoelectric materials, and pyroelectric materials.

16. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein ~~each~~ providing two substrates having crystalline portions ~~portion is of~~ comprises providing silicon.

17. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein heating to consolidate the bond comprises carrying out a heat treatment ~~lasts a few~~ up to 3 hours at a temperature from 800°C to 1400°C, and wherein the ~~given~~ predetermined distance is ~~of the order of~~ about one millimeter.

18. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising treating the faces ~~adapted to form the interface~~

~~are treated by~~ ~~deoxidation~~ with HF to remove oxides from the faces prior to positioning the faces.

19. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising heat treating the faces ~~adapted to form the interface are heat treated~~ prior to positioning the faces.

20. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising polishing the faces ~~adapted to form the interface are treated~~ by chemical mechanical polishing prior to positioning the faces.

21. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising plasma treating the faces ~~adapted to form the interface are plasma treated~~ prior to positioning the faces.

22. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising chemically treating the faces ~~adapted to form the interface are chemically treated~~ prior to positioning the faces.

23. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising applying a thinning treatment ~~is applied~~ to one of the two substrates.

24. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising thinning one of the substrates ~~is thinned~~ by a chemical mechanical abrasion treatment.

25. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising preparing one of the substrates ~~is prepared~~ so that it is demountable and, wherein the method further comprises a subsequent step ~~consists in~~ comprising demounting ~~this~~ the one substrate.

26. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ further comprising thinning one of the two substrates ~~is thinned~~ by

producing a fragile layer ~~(22A)~~ in the one substrate and ~~by~~ fracturing ~~this~~ the fragile layer.

27. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein providing substrates having ~~the~~ crystalline portions ~~of the~~ comprises providing two substrates ~~are~~ prepared from the same crystal.

28. (Currently amended) ~~Method~~ The method according to claim 1, ~~characterized in that~~ wherein ~~the~~ providing two substrates comprises preparing the substrates ~~are prepared~~ by producing a fragile layer ~~(30A, 50A)~~ in ~~the same~~ a source crystal ~~(30, 50)~~, placing markers ~~(32, 52)~~ on either side of ~~this~~ the fragile layer, and ~~causing a fracture in this~~ fracturing the fragile layer to create two free faces, and wherein positioning the faces comprises forming the interface with the stacked regions and the impurity traps ~~is made~~ by bringing ~~these~~ the faces into contact after lining up ~~said~~ the markers.

29. (Currently amended) ~~Method~~ The method according to claim ~~1~~ 28, ~~characterized in that~~ wherein producing a ~~this~~ fragile layer ~~(30A, 50A) is formed by~~ comprises ~~ionic~~ ion implantation.

30. (Currently amended) ~~Method~~ The method according to claim ~~1~~ 28, ~~characterized in that~~ wherein producing a ~~this~~ fragile layer ~~is formed by~~ comprises implanting hydrogen ions.

31. (Currently amended) ~~Method~~ The method according to claim ~~1~~ 28, ~~characterized in that~~ wherein ~~the~~ placing markers ~~are formed~~ comprises forming the markers within the thickness of the source crystal and on either side of the fragile layer.

32. (Currently amended) A structure ~~Structure including~~ comprising two substrates including an interface obtained by molecular bonding of ~~two~~ respective faces of the two substrates, ~~these~~ the two substrates including crystalline portions having on either side of the interface a misalignment of less than ± 6° in rotation and less than ± 1° in bending and further including stacked regions at ~~this~~ the interface, the stacked regions~~,~~ including at least one localized region ~~essentially consisting~~ of a material

different from ~~those constituting~~ the crystalline portions, and ~~where applicable~~ further including impurity traps at the interface such that any portion of the interface away from the stacked regions is ~~at most at a given~~ within a predetermined distance from a stacked region or a an impurity trap.

33. (Currently amended) The structure ~~Structure~~ according to claim 32, ~~characterized in that~~ wherein the ~~given~~ predetermined distance is ~~of the order of~~ about one millimeter.

34. (Currently amended The structure ~~Structure~~ according to claim 32 ~~or claim 33~~, ~~characterized in that~~ wherein the ~~crystals~~ crystalline portions ~~are of~~ comprise silicon.

35. (Currently amended) The structure ~~Structure~~ according to ~~any one of claims~~ claim 32 ~~to 34~~, ~~characterized in that~~ wherein the impurity traps ~~are~~ comprise localized buried layers.

36. (Currently amended) The structure ~~Structure~~ according to claim 35, ~~characterized in that~~ wherein the impurity traps ~~are~~ comprise localized oxide layers.

37. (Currently amended) The structure ~~Structure~~ according to ~~any one of claims~~ claim 32 ~~to 36~~, ~~characterized in that~~ wherein the stacked regions ~~essentially consisting of a different material are~~ comprise electrically insulative regions.

38. (Currently amended) The structure ~~Structure~~ according to ~~any one of claims~~ claim 32 ~~to 37~~, ~~characterized in that~~ wherein the stacked regions ~~essentially consisting of a different material are~~ comprise localized oxide layers.